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| 10/549,299 | 09/15/2005 | Guillaume Bichot | PU030087 | 3592 |
| 24498 7590 04/13/2010 Robert D. Shedd, Patent Operations THOMSON Licensing LLC P.O. Box 5312 Princeton, NJ 08543-5312 | | | | |
| EXAMINER NGUYEN, STEVEN C | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,299

Applicant(s)

BICHOT, GUILLAUME

Examiner

STEVEN C. NGUYEN

Art Unit

2443

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 10-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GA-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 11/06/2009, 02/12/2010

DETAILED ACTION

1. This action is responsive to the remarks filed on 01/15/2010.
2. **Claims 1-9, 18-27** are pending in this application.

Claim 27 has been amended.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 2, 5-7, 18-21, 23-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara et al (US 2004/0066769) in view of Ohba et al (US 2004/0098588), hereinafter Ahmavaara and Ohba.
4. **Regarding Claims 1, 18** Ahmavaara disclosed:

a. A method for establishing a signaling connection between a client terminal and a communications network, the method comprising the steps of (*abstract*);

b. establishing an authentication connection between the client terminal and the communications network (*Paragraph 40 states that a WLAN user is authenticated to access a WLAN network by EAP authentication*);

c. transmitting an authentication message from the communications network to the client terminal (*Paragraph 54 states that the an EAP Identity Request is issued by the network to the user equipment*);

d. transmitting set-up parameters from the communications network to the client terminal, the set-up parameters including information for establishing a signaling connection tunnel between the client terminal and the communications network for transferring control data (*Paragraph 94 states that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection*);

e. establishing the control data signaling connection tunnel using the set-up parameters (*Paragraph 94 states that based on the information received from the authentication server and the user equipment, the WLAN access server establishes a tunnel connection to the WLAN gateway using the tunnel assignment ID*);

f. transmitting signaling information between the client terminal and the communications network via the control data signal connection tunnel (*Paragraph 58 states that signaling information between the UE and the WLAN access server is transmitted*);

Ahmavaara did not explicitly disclose:

g. closing the authentication connection.

However, Ohba disclosed:

h. closing the authentication connection (*Paragraph 59 states that a disconnect request message is sent from the user and a disconnect acknowledgement is returned in order to disconnect from the connection*).

i. The utilization of the readily available closing the authentication connection of Ohba would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to conserve network bandwidth by closing connections when the tasks have already been completed.

5. Regarding Claim 2, the limitations of Claim 1 have been addressed.

Ahmavaara disclosed:

a. transmitting from the client terminal to the communications network acknowledgement of receipt of the set-up parameters (*Paragraph 49 states that the user indicates by the APM parameters that he is connecting to a specific APN*).

6. Regarding Claim 5, the limitations of Claim 1 have been addressed.

Ahmavaara disclosed:

a. wherein the step of establishing an authentication connection between the client terminal and the communications network is performed by way of a path including a wireless network which complies with IEEE 802.11 standards

(Paragraph 42 states that the UE is connected via a wireless connection based on IEEE 802.1x WLAN protocol).

7. Regarding Claim 6, the limitations of Claim 1 have been addressed.

Ahmavaara disclosed:

a. wherein the step of establishing an authentication connection between the client terminal and the communications network includes the steps of establishing extended authentication protocol over local area network and DIAMETER connections *(Paragraphs 42-43 state that a IEEE 802.1x WLAN is utilized. Due to this, the encapsulation of EAP messages is EAPOL. Paragraph 22 states that the invention can utilize the Diameter protocol).*

8. Regarding Claim 7, the limitations of Claim 1 have been addressed.

Ahmavaara disclosed:

a. wherein the control data signal connection tunnel is a general packet radio services (GPRS) tunneling protocol (GTP) tunnel, and the step of transmitting set-up parameters includes the step of transmitting at least one of an internet protocol address and a tunnel identification *(Paragraphs 84-93 state that the tunneling parameters include a tunneling type, a tunneling medium, a tunnel server address, a framed IP address attribute, and a tunnel assignment ID. Paragraph 93 states that the GPRS service is used via the WLAN).*

9. Regarding Claim 19, the limitations of Claim 18 have been addressed.

Ahmavaara disclosed:

a. transmitting control information between said client terminal and said communications network via said control data signaling connection tunnel
(Paragraph 94 states that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with a an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection).

Ahmavaara did not explicitly disclose:

b. closing said authentication connection after transmitting control information.

However, Ohba disclosed:

c. closing said authentication connection after transmitting control information *(Paragraph 59 states that a disconnect request message is sent from the user and a disconnect acknowledgement is returned in order to disconnect from the connection).*

d. The utilization of the readily available closing the authentication connection of Ohba would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the

time of the invention, for example, to conserve network bandwidth by closing connections when the tasks have already been completed.

10. Regarding Claim 20, the limitations of Claim 18 have been addressed.

Ahmavaara disclosed:

a. wherein said steps of establishing an authentication connection and transmitting control information are performed by way of a wireless access point *(Paragraph 42 states that a WLAN UE is connected via a wireless connection based on IEEE 802.1x WLAN protocol to an access point of the WLAN).*

11. Regarding Claims 21, 27 Ahmavaara disclosed:

a. a method for communicating signaling and control information between a mobile device and a communications network, said method comprising *(abstract)*;

b. establishing a radio connection between said mobile device and said communications network *(Paragraph 40 states that a WLAN user is authenticated to access a WLAN network by EAP authentication)*;

c. receiving by said mobile device authentication from said communications network *(Paragraph 54 states that the an EAP Identity Request is issued by the network to the user equipment)*;

d. receiving by said mobile device a signaling request including parameters from said communications network for establishing a signaling connection tunnel *(Paragraph 94 states that based on the APN parameter information and the*

username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection)

e. establishing by said mobile device a tunnel with said communications network (*Paragraph 94 states that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection*);

f. forwarding by said mobile device to said communications network acknowledgment of receipt of said parameters and an indication to said communications network that said tunnel has been established (*Paragraph 49 states that the user indicates by the APM parameters that he is connecting to a specific APN*);

g. receiving by said mobile device an indication from said communications network of completion of authorization to communicate with said communications network through an access point (*Paragraph 94 states that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection*);

h. opening a connection through said established tunnel (*Paragraph 94 states that based on the information received from the authentication server and the user equipment, the WLAN access server establishes a tunnel connection to the WLAN gateway using the tunnel assignment ID*).

Ahmavaara did not explicitly disclose:

- i. terminating receipt of said authentication by said mobile device.

However, Ohba disclosed:

- j. terminating receipt of said authentication by said mobile device
(Paragraph 59 states that a disconnect request message is sent from the user and a disconnect acknowledgement is returned in order to disconnect from the connection).

- k. The utilization of the readily available terminating receipt of said authentication of Ohba would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to conserve network bandwidth by terminating connections when the tasks have already been completed.

12. Regarding Claim 23, the limitations of Claim 21 have been addressed.

Ahmavaara disclosed:

- a. wherein said authentication received from a serving general packet radio service support node of said communications network *(Paragraphs 84-93 state that the tunneling parameters include a tunneling type, a tunneling medium, a tunnel server address, a framed IP address attribute, and a tunnel assignment ID. Paragraph 93 states that the GPRS service is used via the WLAN).*

13. Regarding Claim 24, the limitations of Claim 21 have been addressed.

Ahmavaara disclosed:

a. wherein said radio connection uses an extended authentication protocol or extended authentication protocol over local area network (*Paragraphs 42-43 state that an IEEE 802.1x WLAN is utilized. Due to this, the encapsulation of EAP messages is EAPOL*).

14. Regarding Claim 25, the limitations of Claim 21 have been addressed.

Ahmavaara disclosed:

a. wherein said tunnel is a general packet radio service tunnel (*Paragraphs 84-93 state that the tunneling parameters include a tunneling type, a tunneling medium, a tunnel server address, a framed IP address attribute, and a tunnel assignment ID. Paragraph 93 states that the GPRS service is used via the WLAN*).

15. Regarding Claim 26, the limitations of Claim 25 have been addressed.

Ahmavaara disclosed:

a. wherein communications through said tunnel is accomplished using a general packet radio service tunnel protocol (*Paragraphs 84-93 state that the tunneling parameters include a tunneling type, a tunneling medium, a tunnel server address, a framed IP address attribute, and a tunnel assignment ID. Paragraph 93 states that the GPRS service is used via the WLAN*).

16. Claims 3, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara in view of Ohba and Pellert (US 7,260,061), hereinafter Pellert.

17. Regarding Claim 3, the limitations of Claim 1 have been addressed.
Ahmavaara disclosed:

a. the control data signal connection tunnel (*Paragraph 94 states that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection*).

Ahmavaara did not explicitly disclose:

b. a dedicated signaling tunnel.

However, Pellert disclosed:

c. a dedicated signaling tunnel (*Column 4, Lines 29-51 state that the transit signaling tunnel connection is set up as a dedicated signaling connection in advance*).

d. The utilization of the readily available dedicated signaling tunnel of Pellert would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the

invention, for example, to improve the speed that signaling information is transmitted through the network (*Pellert, Column 4, Lines 49-51*).

18. Regarding Claim 9, the limitations of Claim 1 have been addressed.

Ahmavaara disclosed:

a. wherein the control data signal connection tunnel is a general packet radio services tunneling protocol tunnel, and the step of transmitting set-up parameters includes the step of transmitting both an internet protocol address and a tunnel identification (*Paragraphs 84-93 state that the tunneling parameters include a tunneling type, a tunneling medium, a tunnel server address, a framed IP address attribute, and a tunnel assignment ID. Paragraph 93 states that the GPRS service is used via the WLAN*).

Ahmavaara did not explicitly disclose:

b. a dedicated tunnel.

However, Pellert disclosed:

c. a dedicated tunnel (*Column 4, Lines 29-51 state that the transit signaling tunnel connection is set up as a dedicated signaling connection in advance*)

d. The utilization of the readily available dedicated tunnel of Pellert would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more

than predictable results to one of ordinary skill in the art at the time of the invention, for example, to improve the speed that signaling information is transmitted through the network (*Pellert, Column 4, Lines 49-51*).

19. Claims 4, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara in view of Ohba and Nyberg et al (US 2005/0210251), hereinafter Nyberg.

20. Regarding Claims 4, 22 the limitations of Claim 1 have been addressed.
Ahmavaara disclosed:

a. wherein the client terminal is a mobile terminal (*Paragraph 41 states that a WLAN network is used. Due to this, the UE must be a mobile terminal*).

Ahmavaara did not explicitly disclose:

b. the communications network is a 3G network.

However, Nyberg disclosed:

c. the communications network is a 3G network (*Paragraph 41 states that 3G networks along with 3G mobile stations are used*).

d. The utilization of the readily available 3G communication network of Nyberg would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to improve the rate at which data can be transferred.

21. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara in view of Ohba and Lantto et al (US 2004/0054794), hereinafter Lantto.

22. Regarding Claim 8, the limitations of Claim 7 have been addressed.

Ahmavaara did not explicitly disclose:

a. wherein the step of transmitting set-up parameters includes the step of transmitting quality of service parameters.

However, Lantto disclosed:

b. wherein the step of transmitting set-up parameters includes the step of transmitting quality of service parameters (*Paragraph 128 states that parameters that are transmitted include PDP type, Access point name, compression options, IP address, and quality of service options*).

c. The utilization of the readily available transmitting of quality of service parameters of Lantto would have been obvious to one of ordinary skill in the art in view of the teachings of Ahmavaara since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions. The combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, for example, to ensure data is sent in a timely manner.

Response to Arguments

23. Applicant's arguments filed 01/15/2010 have been fully considered but they are not persuasive. In the remarks, Applicant argued that:

a. Nowhere does Ahmavarra or Ohba show or suggest "transmitting set-up parameters from the communications network to the client terminal, the set-up parameters including information for establishing a signaling connection tunnel between the client terminal and the communications network for transferring control data; establishing the control data signaling connection tunnel using the set-up parameters; transmitting signaling information between the client terminal and the communications network via the control data signal connection tunnel; closing the authentication connection.

In response: Ahmavarra and Ohba do disclose these limitations. Paragraph 94 of Ahmavarra state that based on the APN parameter information and the username/password supplied by the user equipment, the server responds with an Access Accept message that comprises tunnel and filter parameters required for establishing a tunnel connection (i.e.; transmitting the set up parameters from the communications network to the client terminal to establish a tunnel between the client and the network). Paragraph 94 goes on to state that based on the information received from the authentication server and the user equipment, the WLAN access server establishes a tunnel connection to the WLAN gateway using the tunnel

assignment ID. Paragraph 58 states that signaling information between the UE and the WLAN access server is transmitted. Ahmavarra does not explicitly disclose that the authentication connection is closed. However, Ohba does disclose this limitation. Paragraph 59 of Ohba states that a disconnect request message is sent from the user and a disconnect acknowledgement is returned in order to disconnect from the connection. Therefore, the combination of Ahmavarra and Ohba disclose each limitation of the claim.

b. Nowhere does Ahmavarra show or suggest any tunnel to client terminal 10.

In response: Ahmavarra does disclose this. Paragraph 53 states that the UE 10 (user equipment) has its own UE IP address, its own WLAN gateway, and its own tunnel between the respective WLAN gateway and the WLAN access server.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN C. NGUYEN whose telephone number is (571)270-5663. The examiner can normally be reached on Monday through Thursday with alternating Friday 7:30AM - 5:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S.C.N./
Examiner, Art Unit 2443
04/09/2010

/Tonia LM Dollinger/

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Supervisory Patent Examiner, Art Unit 2443